

Subjects and Fields of Study:

The Ph.D. (STEM) program is designed to support students in important fields that contribute to scientific and technological progress. It covers a wide range of subjects including Science (biology, chemistry, physics), Technology (computer science, IT), Engineering (mechanical, civil, electrical), Mathematics (statistics, data science), as well as Social Sciences and Humanities/Arts.

Students can choose their major or minor in any of these areas based on their interest and career goals. In the context of Balochistan, where natural resources and sustainable development are key, special focus is given to fields like Geology, Agriculture, and Environmental Science.

This program encourages students to do research that helps solve local problems while also contributing to global knowledge in STEM, Social Sciences, and Humanities/Arts.

The following areas have been selected for Ph.D. Scholarships in STEM disciplines. These areas are carefully identified to align with the development priorities, existing challenges, and emerging opportunities in Balochistan, Pakistan:

Following Subjects/Fields of Study would be eligible under this Program:

A: Engineering & Infrastructure Development

1. Mining Engineering & Mineral Resource Management
2. Seismology & Earthquake Engineering
3. Flood Risk Management & Climate-Resilient Infrastructure
4. Earthquake-Resilient Construction Engineering
5. Water Resource Engineering & Hydrology
6. Irrigation & Water Management Engineering
7. Urban & Regional Planning with GIS
8. Transportation & Logistics Engineering

9. Renewable Energy Systems (Solar & Wind)
10. Power Systems & Smart Grid Design
11. Electrical Engineering for Power Infrastructure
12. Mechanical Engineering for Industrial Applications
13. Manufacturing Engineering & Industrial Automation
14. Chemical Engineering for Fertilizer & Process Industries
15. Oil & Gas Engineering and Resource Management
16. Ocean Engineering & Port Development
17. Smart Grid Systems for Rural Electrification
18. Climate-Resilient Housing & Urban Design
19. Engineering for Waste Management & Recycling
20. Disaster Risk Engineering & Emergency Response

B. Agriculture, Livestock & Food Security

21. Agricultural Technology & Smart Farming
22. Dryland Agriculture & Olive Farming
23. Soil Science & Land Reclamation
24. Precision Agriculture & IoT Integration
25. Rangeland Management & Forage Development
26. Fisheries Science & Aquaculture Technology
27. Smart Irrigation Systems using IoT
28. Salt-Affected Land Rehabilitation
29. Crop Insurance & Agricultural Risk Modeling
30. Climate-Smart Livestock Farming
31. Animal Health & Livestock Genetics
32. Food Safety & Processing Technology
33. Cold Chain Management for Agricultural Exports
34. Agricultural Drone Mapping & Remote Sensing
35. Desert Locust & Pest Control Science

C. Environmental Sciences & Climate Change

36. Environmental Engineering for Mining Waste
37. Climate Modeling & Environmental Impact Assessment
38. GIS & Remote Sensing for Resource Planning
39. Underground Water Recharge & Conservation
40. Environmental Chemistry & Pollution Control
41. Toxicology & Industrial Risk Assessment
42. Renewable Energy Policy & Infrastructure Planning
43. Marine Ecosystems & Coastal Resource Management
44. Biogas Development for Off-Grid Communities
45. eDNA for Biodiversity Monitoring
46. Ecotourism Development & Environmental Planning

D. Medical Technology

47. Health & Water-borne Disease Control
48. Community Medicine
49. General Surgery & Rural Health Systems
50. Cardiovascular & Emergency Medicine
51. Radiopharmacy & Nuclear Medicine
52. Diagnostics & Pathology Technology
53. Clinical Laboratory Sciences
54. Pharmaceutical Manufacturing & Drug Regulation
55. Health Informatics & Telemedicine Systems
56. Biomedical Engineering
57. Mobile Diagnostics & Digital Health Platforms
58. Pharmacology & Drug Development

E. Information Technology, AI & Digital Systems

- 59. Artificial Intelligence for Agriculture & Security
- 60. Data Science for Resource Forecasting
- 61. ICT for Remote Education & e-Governance
- 62. Cybersecurity for Public Institutions
- 63. Blockchain for Land & Resource Governance
- 64. Digital Platforms for Livestock & Fisheries
- 65. Drone Technology for Surveillance & Mapping
- 66. Smart Livestock Tracking & Market Linkages
- 67. FinTech, Digital Finance & Financial Inclusion

F. Finance, Accounting & Business Management

- 68. Strategic Financial Management & Value Creation
- 69. Performance-Based Budgeting & Resource Allocation
- 70. Public Financial Management & Fiscal Governance
- 71. Enterprise Risk Management & Internal Controls
- 72. Development Finance & Donor Coordination
- 73. Corporate Governance & Anti-Corruption Policy
- 74. Climate Finance & ESG Reporting
- 75. Strategic Cost Management in Public & Private Sector Enterprises
- 76. Integrated Reporting & Global Financial Transparency
- 77. Tax Policy & Public Revenue Mobilization
- 78. Governance, Rule of Law & Institutional Reform

G. Biotechnology & Life Sciences

- 79. Biotechnology for Arid-Zone Crop Improvement
- 80. Herbal Medicine Research & Standardization
- 81. Nano-Technology in Health & Water Purification
- 82. Biophysics & Radiological Imaging
- 83. Bioenergy from Agricultural Waste

84. Veterinary Sciences & Zoonotic Disease Control

H. Mathematics, Physics & Chemistry

85. Applied Mathematics & Computational Modeling

86. Pure Mathematics & Algebraic Systems

87. Physics of Materials & Nanostructures

88. Theoretical Physics & Atmospheric Studies

89. Organic Chemistry for Agro & Pharma

90. Analytical Chemistry for Food & Water Safety

91. Environmental Chemistry

92. Ballistics & Impact Physics

93. Materials Science for Energy & Industry

I. Marine, Coastal & Trade Sciences

94. Oceanography & Marine Resource Studies

95. Port Logistics & Coastal Engineering

96. Maritime Trade Infrastructure Development

J. Cross-Cutting Technology & Innovation

97. Smart Water Conservation Technologies

98. Educational Technology for Remote Regions

99. Digital Governance & Data-Driven Policy Design

K. Creative & Digital Media

100. Digital Media & Content Creation

101. Visual Communication & Graphic Design

102. Film, Animation & Documentary for Social Change

L: Entrepreneurship, eCommerce & Freelancing

- 103. eCommerce & Online Business Strategy
- 104. Fashion Design & Digital Textile Business
- 105. Entrepreneurship in Creative Industries
- 106. Entrepreneurship in Small & Informal Economies
- 107. Vocational Skills & Entrepreneurship Ecosystems

M: Finance, Trading & Financial Tech

- 108. Stock Market Analysis & Trading Psychology
- 109. Forex & Commodities Trading
- 110. Cryptocurrency & Blockchain Applications
- 111. FinTech & Mobile Banking Solutions
- 112. Financial Literacy & Wealth Management
- 113. Islamic Banking & Finance Principles
- 114. Islamic Digital Finance & Halal eCommerce
- 115. Stock, Forex & Crypto Trading Sciences
- 116. FinTech for the Poor: Mobile Wallets & Microfinance

N: Psychology, Rehabilitation & Social Wellbeing

- 117. Counseling Psychology & Mental Health Support
- 118. Rehabilitation Sciences & Behavioral Therapy
- 119. Counseling Psychology & Digital Mental Health
- 120. Behavioral Therapy for Youth Addiction & Trauma

O: Technical & Trade Sciences

- 121. Automotive Technology & Sustainable Mobility

- 122. Renewable Energy for Rural Electrification
- 123. Agri-Tech Startups & Smart Farming for Smallholders
- 124. Local Manufacturing & 3D Printing Innovation
- 125. Low-Cost Housing & Earthquake-Resistant Design

Social Sciences/ Arts & Humanities

S.No	Subjects
1	Environmental Economics
2	Waters Economics
3	Energy Economics
4	Economics of Health
5	Urban Economics
6	China Studies
7	Recreational & performing arts, Music
8	Sampling Statistics
9	Museology (Museum science)
10	Physical Education and sports
11	Archaeology / Biological Anthropology